



DEPARTMENT OF THE NAVY

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20350-1000

SECNAVINST 5100.14C

ASN(I&E)

05 MAY 1999

SECNAV INSTRUCTION 5100.14C

From: Secretary of the Navy

Subj: MILITARY EXEMPT LASERS

Ref: (a) DODINST 6055.11 of 21 Feb 1995 (NOTAL)
(b) SECNAVINST 5100.10G, of 19 Feb 92
(c) Code of Federal Regulations, Title 21
(d) SPAWARINST 5100.12B of 19 Jul 94 (NOTAL)
(e) ANSI Z136.1-1993 American National Standard for the Safe Use of Lasers (NOTAL)
(f) OPNAVINST 5100.23E
(g) MIL-STD-1425A
(h) MIL-STD-882C
(i) DOD 5000.2-R of Mar 96 (NOTAL)

Encl: (1) Sample Format: Deviation From Specified Caution Label for Laser Products
(2) Sample Format: Transfer/Disposal of Exempt Laser Products

1. Purpose. To implement reference (a), provide policy, and assign responsibilities per reference (b) for individual Navy Laser products that are exempt from portions of the radiation safety performance standards of reference (c). This instruction is a substantial revision and should be reviewed in its entirety.

2. Cancellation. SECNAVINST 5100.14B.

3. Scope. Actions required by this instruction apply to all Navy and Marine Corps activities that procure, fabricate, possess, use, store or dispose of laser products that are designed for combat, combat training or classified in the interest of national security. Laser products used in research, development, test or evaluation and which are components of systems intended for combat, combat training or classified are included. All other laser products must comply fully with reference (c) and are not within the scope of this instruction.

4. Definitions.

a. Laser. An acronym for Light Amplification by Stimulated Emission of Radiation. Any device that can produce or amplify electromagnetic radiation in the x-ray, ultraviolet, visible, infrared or other portions of the spectrum by the process of controlled stimulated emission of photons.

b. Military Exempt Lasers. Lasers designed for actual combat or combat training operations; or classified in the interest of national security and exempted from the requirements of reference (c) Part 1002 - Records and Reports (except Section 1002.20 - Reporting Accidental Radiation Occurrences), Part 1040 Section 1040.10 - Laser Products, and Part 1040 Section 1040.11 - Specific Purpose Laser Products.

5. Background.

a. Reference (a) provides policy for individual military laser products that are exempt from the radiation safety performance standards set forth in reference (c) Part 1040. This exemption applies only to lasers used exclusively by the Department of Defense (DOD) and designed for combat, combat training or classified in the interest of national security.

b. Under the exemption described in reference (a), DOD agreed to maintain a permanent record of the status of all exempt laser products, including their ultimate disposition. Also, by the terms of the agreement, no exempt laser products may be disposed of through excess or surplus property channels without advance authorization by the Deputy Under Secretary of Defense (Environmental Security) (DUSD(ES)) or her designee.

c. Reference (d) establishes the Naval Laser Safety Review Board (LSRB) that reviews all military exempt lasers during each phase of development to ensure compliance with Navy and Marine Corps laser safety regulations.

6. Policy. The design and use of military exempt lasers within the Navy and Marine Corps shall comply with reference (d) through (g), other applicable DOD and Navy safety documents and, to the maximum extent practical, the standards set forth in reference (c) Part 1040.

7. Responsibilities.

a. Commander, Naval Air Systems Command, (COMNAVAIRSYSCOM) as designated lead agency for laser safety administration within the Department of the Navy (DON) will:

(1) Manage and administer the Navy and Marine Corps Military Exempt Laser Program.

(2) Ensure that the LSRB reviews all military exempt laser products during each phase of development as appropriate and prior to Approval for Full/Limited Production (AFP/ALP).

(3) Maintain and update the inventory of all military exempt laser types in the Navy and Marine Corps by 30 October of each year.

(4) Provide liaison concerning the transfer and disposition of Navy and Marine Corps military exempt lasers on behalf of DUSD(ES) via the Assistant Secretary of the Navy (Installations and Environment).

b. Commander, Naval Sea Systems Command, (COMNAVSEASYS COM), as designated technical lead agency for laser safety within the DON, will:

(1) Designate and ensure that the Naval Surface Warfare Center (NSWC) Dahlgren Division (G71) participates in design reviews and evaluates compliance with reference (g). That office will measure laser output to determine nominal ocular hazard distances (NOHDs) and other safety related parameters of all lasers prior to review by the LSRB.

(2) In conjunction with the Bureau of Medicine and Surgery (BUMED), provide laser safety survey assistance to Navy and Marine Corps activities.

c. Deputy Chief of Naval Operations (Logistics), Environmental Protection, Safety and Occupational Health Division (N45), shall:

(1) Review the management and administration of the Military Exempt Laser Program with the designated lead agencies annually.

(2) Act as assessment and resource sponsor to fund the management and administration of the Military Exempt Laser Program.

d. Chief, Bureau of Medical Surgery, as discussed in reference (f), will provide, in conjunction with NSWC, laser radiation hazard analysis and technical support. In addition, CHBUMED is responsible for establishing laser medical surveillance requirements, conducting research on biological effects of laser radiation, and issuing Maximum Permissible Exposure (MPE) limits for laser radiation.

e. All commands, contracting and supply activities, research and development activities and acquisition program managers shall:

(1) Identify laser products that are covered by the exemption and establish procedures to ensure that exemptions are granted only to laser products designed expressly for actual combat or combat training operations or classified in the interest of national security.

(2) Provide written notification from the contracting officer to the manufacturer of each laser product that is covered by the exemption, with copy to COMNAVAIRSYSCOM (AIR 4.1.10). Sample notification format and caution label statement is shown in enclosure (3) of reference (a). The manufacturer must attach a caution label, as specified in the sample, any deviation from the specified caution label and the reason for the deviation shall be reported directly to COMNAVAIRSYSCOM (AIR 4.1.10) in keeping with the format in enclosure (1).

(3) Include system safety provisions in all military exempt laser procurement documentation. As a minimum, the following shall be specified:

(a) A system safety program per reference (h) and (i). The program shall include a system safety program plan, in depth hazard analysis and risk assessment of the equipment during various phases of its life cycle, hazard analyses of training and testing sites, routine surveys of equipment located aboard ship, on aircraft and ashore, and operator training in the safe use of the laser system.

(b) Safety controls and procedures of reference (e) and analysis and reporting of those portions of reference (c) that cannot be met. Hazard controls at least equal to those of reference (c) shall be provided. Justification for noncompliance with reference (c) shall be documented. Highlight those significant hazards that cannot be corrected or for which a solution has not been identified and implemented.

(4) Establish a safety review procedure to determine whether adequate hazard analyses and corrective actions have been completed and that exempt laser systems under their cognizance have been designed and will be operated under the applicable requirements of references (d) through (g). Additional guidance may be obtained from COMNAVAIRSYSCOM (4.1.10, (301) 342-3961, DSN 342 ext 111) with respect to laser hazard prevention and from BUMED (212, (202) 762-3448), DSN 762 with respect to medical surveillance.

(5) During each phase of development, prior to AFP/ALP, and for major modifications, submit documentation concerning each military exempt laser product to the LSRB for safety review and approval per reference (d).

(6) Plan, budget and provide funding to NSWCDD, Code G-71 to perform an independent safety analysis of the laser system prior to LSRB review, as appropriate. Planning for development or acquisition of military exempt lasers should also include sufficient schedule time for completion of the independent safety analysis.

f. All distribution addressees shall:

(1) Prohibit the use of all military exempt lasers that have not been reviewed and approved safe for use by the LSRB.

(2) Ensure that all laser-operating procedures are in accordance with reference (d) through (f). Substantive amendments to these procedures shall be provided to COMNAVAIRSYSCOM (AIR 4.1.10) for review.

(3) Maintain inventory control and permanent record of the status of all exempted laser products, including their ultimate disposition.

(4) Report excess lasers to the Defense Reutilization and Marketing Service for utilization screening within DOD and maintain accountability during the reporting period. Transfer of excess lasers shall be made directly between the gaining and losing organization but only after notification and approval by COMNAVAIRSYSCOM (AIR 4.1.10). See enclosure (3) for recommended format.

(5) Develop, in conjunction with Systems Commands, an appropriate demilitarization disposal plan for all military exempt lasers.

(6) Dispose of exempted lasers per reference (i). No disposal of potentially usable lasers or laser parts for use outside of DOD, donation, or sale shall be made without prior approval of COMNAVAIRSYSCOM (AIR 4.1.10). See enclosure (2) for recommended format.

(7) Submit a copy of their implementing instruction and the name of their designated Military Exempt Coordinator to COMNAVAIRSYSCOM (AIR 4.1.10) within six months from the date of this instruction if they are users, holders or inventory managers of military exempt lasers.

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8. Reports. The six month reporting requirements contained in this instruction are exempt from control by SECNAVINST 5214.2B.

A handwritten signature in dark ink, appearing to read "R. B. Pirie, Jr.", with a large, stylized initial "P" and a long, sweeping horizontal stroke at the end.

ROBERT B. PIRIE, JR.

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SAMPLE FORMAT

DEVIATION FROM SPECIFIED CAUTION LABEL FOR LASER PRODUCTS

From:

To: Commander, Naval Air Systems Command (AIR 4.1.10)

Subj: DEVIATION FROM SPECIFIED CAUTION LABEL FOR LASER
PRODUCTS

Ref: (a) SECNAVINST 5100.14C

1. In accordance with reference (a), the following deviation from the standard caution label for exempt lasers is submitted:

CAUTION

2. Reason for deviation.

3. * Laser Type _____
Manufacturer _____
Contract Number _____
Number of Lasers _____
National Stock Number (if available) _____
Exemption Qualification

Combat _____ Combat Training _____ Classified _____

- Description shall include laser medium, emitted wavelengths, maximum output of laser radiation, pulse duration (when appropriate), and laser class.

Signature

SAMPLE FORMAT

TRANSFER/DISPOSAL OF EXEMPT LASER PRODUCTS

From:

To: Commander, Naval Air Systems Command (AIR 4.1.10)

Subj: REQUEST FOR APPROVAL OF TRANSFER/DISPOSAL OF EXEMPT
LASER

1. It is requested that approval be granted to
transfer/dispose of (circle one) the following exempt
laser(s).

- Laser Type _____
Manufacturer _____
Contract Number _____
Serial No.(s) _____
National Stock Number (if assigned) _____

Exemption Qualification

Combat _____ Combat Training _____ Classified _____

To be transferred to: _____

To be donated or sold to: _____

For Disposal:

Describe methods of demilitarization or re-
modification that have been or will be accomplished to
bring the laser in compliance with 21 CFR Part 1040 prior
to disposal outside DOD.

- Description shall include laser medium, emitted
wavelengths, maximum output of laser radiation, pulse
duration (when appropriate) and laser class.

Signature

Enclosure (2)